

Alexander G. Supan, 1847-1920.

Prof. Supan, famous geographer, whose death was recently announced, was born in Innichen, Tyrol, March 3, 1847. He completed his education at the universities of Graz, Vienna, Halle a. S., and Leipsic. In 1884 he became editor of *Dr. A. Petermann's Mitteilungen aus Justus Perthes' Geographischer Anstalt* and served in that capacity for 25 years. From 1884 to 1909 he held the professorship of geography at the University of Czernowitz, and the same position at the University of Breslau from 1909 on. Probably his best-known work is his *Grundzuge der physischen Erdkunde*, which reached its sixth edition in 1916. Of his works that particularly interest meteorologists may be mentioned: *The Cloudiness of the Earth*, an extensive discussion started by Behm and Wagner, which he completed; *Distribution of Rainfall over the Land-Surface of the Earth*, published in 1898; and *Statistics of the Lower Winds*.—H. L.

Dr. Max Margules.

Lieut. Col. E. Gold has prepared an obituary which appears in *Nature* for October 28, 1920, which discloses the sad circumstances of Dr. Margules' death, on Octo-

¹ An extensive obituary by H. Wagner appears in *Petermann's Mitteilungen*, July-August, 1920, 140-146.

ber 4. It is said that "his death was due to starvation. He had been living on a pension of 400 crowns a month (which is equivalent to 8s.) [\$1.40], and he was too proud to beg for assistance." Dr. Margules became secretary of the Meteorological Institute at Vienna in 1890, having entered the Austrian Meteorological Service in 1880 after studying at Vienna and Berlin. He was 64 years of age.

His work concerned itself chiefly with mathematical discussions of the mechanics of the atmosphere. Among the especially noteworthy works is mentioned the computation of the pressure oscillations of the atmosphere on a rotating globe, in which he found that the period would be exactly 12 hours if the temperature were -5° C. In the Year Book of the Meteorological Institute of Vienna for 1903 he gave a comprehensive discussion of the energy of storms, arriving at the conclusion that "the source of storms is to be sought only in the potential energy of position."

To quote from Lieut. Col. Gold:

Margules retired from active participation in the work of the Austrian Meteorological Service during the directorship of the late Prof. Perner and applied himself to the study of chemistry. He fitted up a small laboratory in his own house, where he lived in comparative retirement. The present writer was saddened to see him there in 1909 entirely divorced from the subject of which he had made himself a master. Meteorology lost him some 15 years ago and is forever the poorer for a loss which one feels might and ought to have been prevented.

—C. L. M.

BIBLIOGRAPHY.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY

C. FITZHUGH TALMAN, Professor in Charge of Library.

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in the meteorological work and studies.

Bates, D. C.

Climate of New Zealand. Wellington. 1920. 16 p. 21 $\frac{1}{2}$ cm.

Berget, Alphonze.

Où en est la météorologie. Paris. 1920. 302 p. 19 $\frac{1}{2}$ cm.

Bergsträsser, Gotthelf.

Neue meteorologische Fragmente des Theophrast. Arabisch und deutsch. Herausgegeben von G. Bergsträsser, mit Zusätzen vorgelegt von Franz Boll. Heidelberg. 1918. 30 p. 24 $\frac{1}{2}$ cm. (Sitzungsbs. der Heidelberger Akad. der Wissensch. Philos.-historische Klasse. 1918. Abh. 9.)

Bölsche, Wilhelm.

Eiszeit und Klimawechsel. Stuttgart. 1919. 77 p. 21 cm.

Brockmann-Jerosch, H.

Baumgrenze und Klimacharakter. Zürich. 1919. 255 p. 24 cm. (Pflanzengeographische Kommission der Schweiz. naturforschenden Gesellschaft. Beiträge zur geobotanischen Landesaufnahme 6. Den Berichten der Schweiz. bot. Gesellschaft, Heft, 26, für die Mitglieder und den Tauschverkehr beigelegt.)

Chamber of Commerce of the United States.

Relation of weather and business in regard to temperature. Washington. 1919. 12 p. 27 $\frac{1}{2}$ cm. [See Mo. WEATHER REV., Dec. 1919, 47:867.]

Eredia, Filippo.

Clima di Zavia (Tripolitania). Roma. 1920. 12 p. 23 $\frac{1}{2}$ cm. (Estratto dal Bol. informazioni, anno 8, no. 1-6.)

Clima di Zuara. Roma. 1919. 19 p. 23 $\frac{1}{2}$ cm. (Estratto dal Bol. d'informazioni, Ott. 1919.)

Precipitazioni acquee in Palestina. Roma. 1920. 14 p. 23 $\frac{1}{2}$ cm. (Estratto dal Bol. della R. Soc. geografica italiana. Fasc. 7-9, 1920.)

Fraps, G. S.

Moisture relations of some Texas soils. Austin, Tex. 1915. 36 p. 23 cm. (Texas agric. exper. station. Bull. 183.)

Gautier, Raoul.

Résumé météorologique de l'année 1918 pour Genève et le Grand Saint-Bernard. Genève. 1919. 104 p. 23 cm. (Tiré des Archives des sciences physiques et naturelles. Vol. 1. Nov. 1919.)

Gautier, Raoul, & Rod, Ernest.

Observations météorologiques faites aux fortifications de Saint-Maurice pendant l'année 1918. Genève. 1919. 30 p. 22 $\frac{1}{2}$ cm. (Extrait des Archives des sciences physiques et naturelles, 1919.)

Great Britain. Meteorological office.

Meteorological charts of the Southern ocean between the Cape of Good Hope and New Zealand. 3d edition. London. 1917. 13 p. 36 charts. 24 x 32 cm.

Haeuser, Josef.

Der Wolkenbruch in Augsburg und Umgebung am 13. Juni. 1912. Munich. 1914. 16 p. 34 cm. (Abh. des K. Bayer. Hydrotechn. Büros.)

Der Wolkenbruch in Nürnberg und Umgebung am 3. Juli 1914, und die gleichzeiten Gewittererscheinungen in andern Gegenden Bayerns. Munich. 1917. 33 p. 34 cm. (Abh. des K. Bayer. Hydrotechn. Büros.)

Hennig, Richard.

Unser Wetter. Eine Einführung in die Klimatologie Deutschlands an der Hand von Wetterkunde. 2nd edition. Leipzig. 1919. 118 p. 18 $\frac{1}{2}$ cm. [Title of 1st ed.: Gut und schlecht Wetter.]

Hubert, Henry.

Sur l'emploi des avions en Afrique occidentale pour les recherches d'ordre scientifique. Dakar. 1919. 15 p. 24 cm. (Extrait du Bull. du Comité d'études historiques et scientifiques de l'Afrique occidentale française. 1919.)

Huber, Anton.

Temperaturunterschiede zwischen Partenkirchen und dem Föhnlorte Mittenwald. Munich. 1920. 12 p. 33 cm. (Sonderabdruck aus dem Deutschen meteorol. Jahrbuch für Bayern. 1920.)

Karrer, Enoch, & Tyndall, E. P. T.

Relative spectral transmission of the atmosphere. Washington. 1920. p. 377-408. 28 cm. ([U. S.] Bureau of Standards. Scientific papers, no. 389.)

Knorr, Ernst.

Studien über die Regenverhältnisse Italiens. Wetzler. 1919. 63 p. 22 $\frac{1}{2}$ cm. (Inaug.-Dis. Giessen.)

Knowlton, F. H.

Evolution of geologic climates. (Reprinted from Bull. of the Geological society of America, vol. 30, pp. 499-566. Published Dec. 31, 1919.)

Köhler, Hilding.

Studien über die Nebelfrostablagerungen auf dem Pärtetjäkko. Stockholm. 1919. 38 p. 26 cm. (Naturwissenschaftliche Untersuchungen des Sarekgebirges in Schwedisch-Lappland. Bd. 2, Abt. 1, Lief. 1. Sonderabdruck.)

Kohlschütter, V.

Nebel, Rauch und Staub. Berlin. 1918. 36 p. 24 cm.

Leiva, Elías.

Climatología de Costa-Rica. Guatemala. 1919. p. 181-185. 25 cm. (Excerpted from "Centro-América," Guatemala, vol. 12, no. 2. Abril-Junio, 1920.)

Lempfert, R. K. G.

Meteorology. London. 1920. 186 p. 19 $\frac{1}{2}$ cm.

Marcillac, Paul.

La lutte contre la grêle et la foudre. Paris. 1919. 79 p. 18 $\frac{1}{2}$ cm.

Negro, Carlo.

Sul clima della Libia attraverso i tempi storici. Memoria 4. Roma. 1919. 51 p. 28 cm. (Estratto dalle Memorie della Pontificia accademia dei Nuovi lincei. Ser. 2, vol. 5.)

Sulla frequenza degli aloni. Nota 6.—Groenlandia. Roma. 1919. 7 p. 29 $\frac{1}{2}$ cm. (Estratto dagli Atti della Pontificia accademia romana dei Nuovi lincei. Sessione 7a, del 15 Giugno 1919.)

Sulla frequenza degli aloni. Nota 7.—Penisola Scandinavia. Roma. 1919. 16 p. 29 $\frac{1}{2}$ cm. (Estratt dagli Atti della Pontificia accademia romana dei Nuovi lincei. Sessione 1a, del 21 Diciembre 1919.)

Richarz, F.

Über des Farbe des Mondes. Farbenerscheinungen an Wasserfällen und am Wolken. Marburg. 1917. p. 11-14. 22 cm. (Sonderabdruck aus den Sitzungsb. der Gesellschaft zur Beförderung der gesammten Naturwissenschaften zu Marburg, Nr. 1.)

Roget, François Roget.

Altitude and health. London. 1919. 186 p. 22 $\frac{1}{2}$ cm.

Rosenkranz, Johanna.

Beziehungen zwischen den Schwankungen des Klimas und der Produktion in Australien. Hamburg. 1917. 50 p. 24 cm. (Inaug.-Dis.—Kiel.)

Schultz, Bruno.

Die periodischen und unperiodischen Schwankungen des Mittelwasserstandes an der flandrischen Küste (Okt. 1915-Sept. 1918). Hamburg. 1920. 27 p. 29 cm. (Deutsche Seewarte. Aerologische und hydrographische Beobachtungen der deutschen Marine-Stationen während Kriegszeit 1914-1918. Heft 1. Hydrographische Untersuchungen.)

Schwartz, E. H. L.

The Kalahari, or thirstland redemption. Cape Town. [n. d.] 163 p. 22 cm.

Schweidler, E. v., & Kohlrausch, K. W. L.

Atmosphärische Elektrizität. Leipzig. 1915. p. 193-276. 26 cm. (In Handbuch der Elektrizität und des Magnetismus. Band 3. Lieferung 2.)

Sifontes, Ernesto.

Notas breves sobre climatología tropical. Bolívar. 1920. Excerpts from El Luchador, June 5, 12, 19, and 26, 1920.]

Skard, O. M.

Om frostskaden paa frugtræerne i Lier aarne 1915-1918. Kristiania. 1918. 32 p. 22 $\frac{1}{2}$ cm. (Sætryk av "Norsk havetidende." Nr. 17-18, 1918.)

Tenani, Mario.

Calcolo della densità dell' aria alle varie altezze fino a 10,000 metri, in base alle osservazioni italiane. Vigna di Valle. 1918. 18 p. 31 cm. (Battaglione dirigibili. R. Stazione aerologica principale di Vigna di Valle.)

Nuove tabelle per la determinazione delle altezze per mezzo del barometro. Vigna di Valle. 1919. 13 p. [manifolded]. (R. Stazione aerologica principale.)

enani, Mario.

Lo stato presente della nostra conoscenza della temperatura dell' alta atmosfera in Italia. Roma. 1918. 22 p. 31 cm. (Estratto dalle Memorie del R. Osservatorio astronomico al collegio romano. Serie 3, vol. 7, parte 1.)

Toepfer, Max.

Gewitter und Blitze. Dresden. 1917. 16 p. 18 $\frac{1}{2}$ cm. (Sonderabdruck aus den Verbands-Mitteilungen der Vereinigung: Dresdner Bezirksvereine deut. Ingenieure und Dresdner Elektrotechn. Verein.)

Van Buskirk, J. D.

Climate of Korea and its probable effect on human efficiency. 59 p. 22 $\frac{1}{2}$ cm. (Reprinted from Transactions of the Korea branch of the Royal Asiatic society, vol. 10, 1919.)

Wagner, Edgar.

Regenkarten von Elsass-Lothringen mit erläuternden Text und Tabellen. Strassburg. 1916. p. 23-123. 23 cm. (Excerpted from Mitteilungen der Gesellschaft für Erdkunde und Kolonialwesen zu Strassburg i. E. für das Jahr 1914. Heft 5.)

Wallén, Axel.

Nederbörd avrinning och avdunstning i Lagans vattenområde. 2. Vattenhuskällningen under årets lopp. Stockholm. 1920. 37 p. 20 $\frac{1}{2}$ cm. (Särtryk ur Teknisk Tidskrift, Vag- och Vattenbyggnadskonst, Häft 3, 1920.)

Westman, J.

Stärke der Sonnenstrahlung im Mittelschwedischen Ostseegebiet März 1918-Mai 1919. Nyköping. 1920. 24 p. 31 cm. (Meddelanden från Statens meteorologisk-hydrografiska anstalt. Band 1, nr. 1.)

RECENT PAPERS BEARING ON METEOROLOGY AND SEISMOLOGY.

C. F. TALMAN, Professor in Charge of Library.

The following titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers and other communications bearing on meteorology and cognate branches of science. This is not a complete index of all the journals from which it has been compiled. It shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau.

Astronomie. Paris. 34. année. 1920.

Raymond, G. Contribution à l'étude du mistral. p. 335-336. (juil.) [Effects on growth of trees.]

Störmér, Carl. L'aurore boréale du 22-23 mars 1920 observée dans la Norvège. p. 422-424. (sept.)

California citograph. Los Angeles. v. 5. Feb., 1920.

Woglum, R. S. Value of weather records in fumigation. p. 110-111.

California citograph. Los Angeles. v. 6. Nov., 1920.

Carpenter, Ford A. Is your thermometer correct? p. 7.

Young, Floyd D. Smoke cover and direct radiation in frost protection. p. 6.

Ciel et terre. Bruxelles. 36. année. 1920.

J. La foudre globulaire et les travaux du Prof. I. Galli. p. 140-145. (mai-juin.)

Rossignol, Jules. Les feux follets méritent-ils une place et une théorie parmi les météores lumineux de l'atmosphère? p. 177-180. (juil.-août.)

Rouch, J. Les applications de la météorologie pendant la guerre. p. 151-157. (juil.-août.)

France. Académie des sciences. Comptes rendus. Paris. Tome 171. 1920.

Besson, Louis. Relations entre les éléments météorologiques et le nombre de décès par maladies inflammatoires des organes de la respiration, à Paris. p. 686-688. (11 oct.) [Abstract in Mo. WEATHER REV., Sept., 1920, 48:507.]

Danjon, A., & Rougier, G. Le spectre et la théorie du rayon vert. p. 814-817. (26 oct.)

Rouch, J. Sur la variation diurne de la température dans l'Antarctique. p. 866-868. (2 nov.) [Abstract in this REVIEW, p. 600.]

Geographical review. New York. v. 10. 1920.

Brooks, Charles F. Notes on the climate of Panama. p. 268-269. (Oct.) [Based on articles in Mo. WEATHER REV.]

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Hemel en Dampkring. Den Haag. 18. Jaarg. Oct., 1920.

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